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(74) Agents: **ALBERT, Jennifer, A. et al.**; Hunton & Williams,  
1900 K Street, N.W., Washington, DC 20006 (US).

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(71) Applicant: **GE FINANCIAL ASSURANCE HOLD-  
INGS, INC.** [US/US]; 6604 West Broad Street, Richmond,  
VA 23230 (US).

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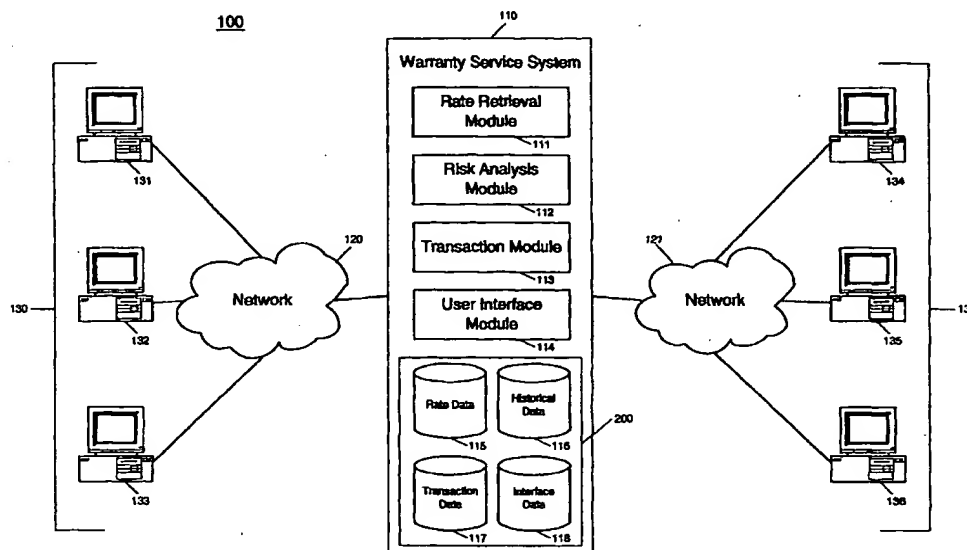
(72) Inventors: **ATWATER, Peter**; 1484 Magpie Court,  
Golden, CO 80403 (US). **BANAK, Debra**; 14281 West  
Evans Circle, Lakewood, CO 80228 (US). **ELDRIDGE,  
Loretta**; 8546 Dallas Street, La Mesa, CA 91942 (US).  
**RICHARDSON, Christine**; 18370 East Iowa Drive,  
Aurora, CO 80017 (US). **MOORTHY, Venkatapathy**;  
759 South Reed Court #B-31, Lakewood, CO 80226 (US).

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(54) Title: **SYSTEM AND METHOD OF PROVIDING UNIFORM RATES FOR WARRANTIES**



(57) Abstract: A system and method of providing uniform rates for warranties including a data source and a rate retrieval engine. The data source includes warranty product/service descriptions, warranty product/service rate structures, product trade channel designations, and warranty subject matter designations. The rate retrieval engine uses the warranty subject matter designations and product trade channel designations to locate warranty products/services and their associated rates and descriptions.

WO 01/90846 A2

## SYSTEM AND METHOD OF PROVIDING UNIFORM RATES FOR WARRANTIES

### Field of the Invention

5           This invention relates to the field of data mining, analysis and electronic commerce for warranty services.

### Background of the Invention

          A warranty is a representation by a seller of goods that the article sold has certain characteristics such as quality. The seller typically also promises or undertakes to insure  
10   that the characteristics concerning the goods are as he has represented them. Warranties can be given by a manufacturer, dealer and/or retailer of consumer goods to the consumer pursuant to which such manufacturer, dealer and/or retailer undertakes to preserve or maintain the utility or performance of the consumer good or provide compensation to the consumer or repairs of the good if there is a failure in the utility or performance of the  
15   good. Warranties provide protection to consumers for malfunction and sometimes damage to or loss of consumer products such as motor vehicles, consumer electronics, home appliances, and other consumer products.

          Warranties of some kind are frequently provided by manufacturers as part of the initial sale of new consumer products. Additionally, retailers, credit card companies, and  
20   other entities may automatically provide additional, supplemental, extended or alternative warranties. In addition, there may be warranties which may be purchased separately from the sale of the consumer product itself. Such independent or extended warranties may be provided by retailers, financial institutions, insurance companies, or other third parties and may be a marketable product in their own right. Typically, a seller of a consumer  
25   product offers a warranty of the consumer product as an inducement to the consumer to purchase the product and such warranty becomes a promise included as a term in the contract for sale of the consumer product. However, consumers may desire to obtain extended warranties, warranty extension programs, and similar warranty products as additional protection against risk of loss or other failure of the product. Although  
30   extended warranties do not fall within the strict legal definition of a "warranty," but are actually more akin to service contracts or mechanical breakdown insurance policies, many

- 2 -

sellers and consumers refer to such arrangements as "extended warranties" and, thus, we will use the terms "warranty" or "extended warranty" to refer herein to such service contracts and mechanical breakdown in insurance arrangements.

5 A seller of extended warranty products/services typically desires to price such extended warranty products/services based upon a projection of a likelihood or risk that consumers will make warranty claims which require repair services and/or compensation and a projection of the amount of expenses associated with the rendering of such repair services and/or compensation. Such seller typically, however, after taking such factors into account, will try to price such warranty products/services at a level to amount to a  
10 profit for the seller. In the case of some warranties, such as those provided by manufacturers and merchants with an initial sale of a new product, the extended warranty price is built into the purchase price of the product or the costs associated with such warranties are included in the operational costs of the business. However, in other cases, such extended warranties constitute an additional price to a consumer.

15 There are many approaches to projecting the likelihood or risk that consumers will make warranty claims for a given product. One approach reviews product variations in year, make, model, features, options, condition, and other similar "risk" factors relating to the warranted product (*e.g.*, the car, home stereo, or refrigerator subject to the warranty) and considers how such risk factors may impact the associated warranty claims.  
20 However, sellers of warranty products/services have traditionally grouped a number of these risk factors within a single risk category and price or rate plan due to the burden of maintaining a large number of rate schedules.

In many cases, a manufacturer, retailer, and credit card provider outsources its warranty products/services for its products to third party warranty service providers. A  
25 given warranty service provider may provide a large number of different warranty products through a variety of channels of trade. A single warranty service provider may handle warranty service programs for a plurality of manufacturers, retailers, and credit card companies, as well as sell extended and alternate warranties not associated with purchase of particular products through direct sales to consumers, retailers, or other trade  
30 channels. Prices or rates for any given warranty product may vary depending on the particular trade channel through which such warranty product is purchased (due to the

- 3 -

need to pay commissions, various incentive programs, varying overhead costs, preferred channels, etc.).

Traditionally, the consumer is required to make a one-time, up-front payment to the warranty service provider for a service contract that covers a term of several years.

5 Given competition among service providers, a service provider is likely to try to price its warranty contracts at a bargain level to obtain the consumers' business. Many warranty service providers do not adequately account for the fact that warranty claim submissions by the consumer will increase as the end of the warranty contract term approaches and have not priced such warranty service contracts accurately to enable the provider to  
10 realize a profit. Since all payments to be made by the consumer for such warranty services were paid up-front, the warranty service provider cannot seek additional payments from the consumer. Thus, traditionally, warranty service providers have very little, if any, profits from offering such services. Warranty service providers currently lack a system or method to accurately project the likelihood that consumers will make  
15 warranty claims for a given product which require the service provider to incur expenses in repairing such product. Warranty service providers also lack a system or process which will enable the service provider to accurately set the rates or payment amounts for such service contracts in order to cover their expenses and realize profits, but also to be able to effectively compete for consumers' business. Moreover, present warranty service  
20 providers lack a centralized system for coordinating and updating rates for warranty products for access by persons within the warranty service provider's business enterprise, vendors, consumers, and other interested parties.

These and other drawbacks of prior art systems are overcome by the various embodiments of the invention.

## 25 Summary of the Invention

It is an object of the invention to overcome the above-mentioned drawbacks and others.

It is an object of the invention to provide a system and method for maintaining and accessing uniform rates for warranty products.

30 These and other objects of the preferred embodiments are particularly achieved by a system including a data source with a plurality of warranty product/service descriptions,

a plurality of warranty product/service rate structures, a plurality of product trade channel designations, and a plurality of warranty subject matter designations. The system also includes a rate retrieval engine for querying the data source based upon an input product trade channel and the warranty subject matter and selectively returning at least one  
5 warranty product/service rate corresponding to at least one warranty product/service description for providing warranty coverage for said input subject matter.

These and other objects of the preferred embodiments are also particularly achieved by a method of providing uniform warranty rates to a plurality of users over a network including the steps of: receiving a request for a warranty product/service rate  
10 quotation; identifying a product trade channel based upon the input request; identifying a subject matter of a product to be covered by the desired warranty product/service from the input request; accessing a data source including a plurality of warranty product/service rate structures; calculating a warranty product/service rate for the subject matter based upon the information in the input request; and outputting a warranty product/service rate  
15 quotation.

The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate an embodiment of the invention and, together with the description, serve to explain the principles of the invention.

#### **Brief Description of the Drawings**

20 Figure 1 is a schematic diagram of a networked system according to an embodiment of the invention.

Figure 2 is a schematic diagram of a data source for use in a networked system, such as the system of Figure 1.

25 Figure 3 is a schematic diagram of a computer system according to an embodiment of the invention.

Figure 4 is a flow chart illustrating the steps included in a method for providing a warranty product rate quotation according to an embodiment of the invention.

Figure 5 is a flow chart showing the steps involved in a method of identifying warranty product subject matter according to an embodiment of the invention.

Figure 6 is a flow chart detailing the steps included in a method of accessing a rate structure, calculating a rate, providing a rate quotation, and optionally selecting and executing a purchase transaction according to an embodiment of the invention.

#### **Detailed Description of the Preferred Embodiments**

5       Reference will now be made in detail to the present preferred embodiments of the invention, examples of which are illustrated in the accompanying drawings in which like reference characters refer to corresponding elements. The system and method for maintaining and accessing uniform rate information for warranty products/services described herein provides a resource for a warranty product and service provider  
10       enterprise to obtain warranty product/service information. The system and method of the present invention may also be used by such warranty product and service provider to conduct warranty product purchase transactions over a network, such as the Internet, with a plurality of users, such as vendors, consumers, manufacturers, retailers, credit card companies, and others. In one embodiment, the system and method may utilize a web  
15       page driven user interface together with Internet communications, data sharing, and business-to-business protocols to achieve the objectives of the invention.

      Figures 1-3 depict multiple functional and data modules according to one or more embodiments of the invention. The modules may represent a combination of software and hardware for performing a task or set of tasks. A data processor, memory, and an  
20       instruction set (*i.e.*, computer code) may be all that are needed to carry out the tasks for a given embodiment of each module. More commonly, however, multiple input and output devices, short term and long term memory systems, layers of computer code (*i.e.*, operating system software, application software, etc.), communication devices, and multiple processors may be used. Further, multiple modules may share the same  
25       hardware and portions of a software library. In some cases, a module may contain one or more other modules. As will be understood by those of ordinary skill in the art, the modules described herein may be embodied in a large number of equivalent combinations of code objects and hardware. The units represented by the modules described are conceptual and should not be construed as a limiting structure for the hardware and  
30       software combinations capable of executing the modules' tasks.

- 6 -

Figure 1 depicts a networked system 100 for maintaining and accessing uniform rates for warranty products according to an embodiment of the invention. Warranty Service System 110 is connected via Networks 120 and 121 to a plurality of terminal devices 130, such as computer terminals 131, 132, 133, 134, 135, and 136. Warranty Service System 110 provides a uniform resource of information about a plurality of warranty products/services (*e.g.*, various warranty plans with varying rates, conditions, terms, options, etc.) for one or more warranty product subject matters (*e.g.*, cars, trucks, recreational vehicles, trailers, boats, home electronics, appliances, etc.). Warranty Service System 110 may be maintained by a warranty product and service provider enterprise and used by entities and agents within the warranty service provider enterprise itself for providing uniform warranty rate information to customers, vendors, retailers, manufacturers, financial institutions, agents and others. Warranty Service System 110 may provide customized responses to inquiries for rate quotations and comparisons of different available warranty product/services with different rates based upon the specific needs of the inquiring user. Warranty Service System 110 may also be used as a transaction engine for conducting a purchase transaction over networks 120 and 121.

Networks 120 and 121 may be comprised of any sort of data exchange network, including wide area networks, local area networks, proprietary enterprise intranets, and other types of networks used to transmit information between two or more users. In a preferred embodiment, network 120 may be the Internet and is used to provide data connections to remote users, such as consumers, vendors, manufacturers, credit card companies, remote employees or divisions of the warranty product and service provider enterprise, and other users. In a preferred embodiment, network 121 may be a proprietary enterprise intranet for providing heightened efficiency and access to employees, divisions, and subsystems of the warranty product and service provider enterprise maintaining Warranty Service System 110. Terminal devices 130 may be any devices for accessing a data network including devices such as personal computers, terminals, interactive televisions, personal digital assistants (PDAs), telephones, wireless telephones, Internet appliances, and other devices. Terminal devices 130 may include a system of servers, data sources, and additional terminal devices for accessing Warranty Service System 110.

Warranty Service System 110 may include a plurality of functional modules for conducting warranty product rate management tasks, such as rate retrieval, risk analysis and rate adjustment, transaction management, and interface management. As shown in Figure 1, Warranty Service System 110 includes a Rate Retrieval Module 111, a Risk Analysis Module 112, a Transaction Module 113, and a User Interface Module 114. Warranty Service System 110 may also include one or more data sources for storing, organizing, and archiving data for various warranty service tasks. Warranty Service System 110 further includes a Rate Data source 115, a Historical Data source 116, a Transaction Data source 117, and an Interface Data source 118.

Rate Retrieval Module 111 may include an engine for formulating one or more data queries and for sending those data queries to a data source, such as Rate Data source 115, based upon a rate quotation request from a user of Warranty Service System 110. Rate Retrieval Module 111 may also include an engine for receiving the results returned from the queries and formatting or calculating one or more rates for one or more warranty products/services available for purchase in connection with the particular consumer product described in the rate quotation request. Rate Retrieval Module 111 calculates a rate for a warranty product based upon a multivariable rate structure. By automating rate retrieval within a database driven system, Rate Retrieval Module 111 rapidly calculates rate estimates based upon comparison of a large number of rating variables, which would be prohibitively cumbersome if calculated manually.

For example, Rate Retrieval Module 111 uses a detailed description of the warranty product subject matter to identify a rate customized to the risks associated with use of that particular subject matter by a consumer. The detailed description of the warranty product subject matter may include type of product (*e.g.*, automobile, water craft, trailer, VCR, refrigerator, etc.), make or manufacturer of the product (*e.g.*, Ford, Honda, Sony, GE, etc.), model of the product (*e.g.*, Ford Escort, Honda Civic, IBM Thinkpad computer, etc.), year of manufacture of the product, features of the product (*i.e.*, dual air bags in an automobile, foglights in a vehicle, turbo-charged engine) (some features may increase the safety of the product and others may make it riskier when used), condition (*e.g.*, new/used, mileage, prior repairs, etc.), and other factors. Rate Retrieval Module 111 may also consider the channel of trade in which such product is distributed



and modify or access alternate rate data based upon the channel of trade identified.

Variations in channel of trade may warrant rate variations. For example, retailers may require different rates than a consumer, a purchaser in one geographic market may require a different rate than a purchaser in another geographic market which is a statistically

5 “safer” geographic market. A warranty product and service provider may be offering an incentive program for a particular type of purchaser at a particular time. Similarly, there may be variations in rates even among consumers, such as among consumers who use varying trade channels for purchase, such as through a Web Site versus through a telephone system versus purchase from a retail outlet, because of differing operational  
10 costs for the warranty product and service provider enterprise for distribution and sale of warranty products and services through such trade channel. Moreover, warranty product and service rates may vary as between different consumers based upon such consumers’ prior purchase history, prior history of submission of warranty-related claims, age and other factors.

15 Rate Retrieval Module 111 may also identify a geographic region or another basis for assessing taxes in connection with the sale of the warranty product or service. For example, Rate Retrieval Module 111 may identify a point of origin of the rate quotation request to be New York State and can then modify the calculated rate to compensate for New York State sales taxes.

20 In some embodiments, any of the preceding factors for determining the rate of a warranty product or service may be used as fields or variables for accessing rate structures within Rate Data source 115. Rate Retrieval Module 111 can then transmit a variety of data relevant to one or more warranty products/services in addition to transmission of a rate calculation in response to an input rate request. For example, Rate Retrieval Module  
25 111 may provide a description of a warranty product or service, information about the provider of the warranty product/service, and various terms, options, and conditions for purchase of the warranty product/service. A plurality of rates or rate modifiers may be provided to a user based upon a plurality of options or variations in terms and conditions for purchase that may be selected by the user.

30 Risk Analysis Module 112 analyzes historical data, such as the data stored in Historical Data source 116, in order to adjust the rate structures stored in Rate Data source

115. Risk Analysis Module 112 also provides automated data analysis algorithms for periodically adjusting the rate structures stored in Rate Data source 115 based upon periodic charges in the historical data stored in Historical Data source 116. Risk Analysis Module 112 may also be used to manually analyze the historical data stored in Historical Data source 116 and to adjust the rate structures for the rates stored in Rate Data source 115 or, a combination of automated calculations using the risk analysis algorithms and a manual analysis may be used to calculate rate adjustments. In one embodiment, Risk Analysis Module 112 may utilize a query and analysis system for adjusting the rate structure in response to a rate quotation request.

Transaction Module 113 provides a commerce engine for conducting at least a portion of a sales transaction for purchase of a warranty product or service. Transaction Module 113 gathers information submitted by a user or the information calculated or retrieved by Rate Retrieval Module 111 and Risk Analysis Module 112 and organizes and selectively stores such data in Transaction Data source 117. In one embodiment, Transaction Module 113 receives transaction data from remote users reflecting completed transactions and adds the received transaction data to the data stored in Transaction Data source 117. Transaction Module 113 also provides users with the ability to selectively access the data stored in the Transaction Data source 117 regarding prior transactions and consumer information. Transaction Module 113 also allows a user to execute a binding contract for purchase of a warranty product or service and allows the user to submit payment information for such purchase, such as a credit card number.

User Interface Module 114 provides a plurality of interfaces for varying access methods used by some or all users of Warranty Service System 110. For example, User Interface Module 114 may be comprised of a thin client interface (*e.g.*, a Web Site), a telephone interface, a business-to-business interface, and an internal enterprise interface. Each interface included in Interface Module 114 may have varying access privileges, interface protocols, security protocols, and capabilities. Similarly, each interface included in User Interface Module 114 may be customized to a particular user or user type, such as consumers, manufacturers, retailers, financial institutions, warranty product/service vendors, employees of the warranty product/service enterprise, and others. In a preferred embodiment, User Interface Module 114 is comprised of one or more Web Sites available

over the World Wide Web of the Internet for accessing the various functionalities of Warranty Service System 110. User Interface Module 114 may utilize a data source, such as Interface Data source 118, which contains a plurality of HTML documents.

Rate Data source 115, Historical Data source 116, Transaction Data source 117,  
5 and Interface Data source 118 may include any number of data repositories. They may together form a single relational database or data source that is queried by the various other modules in the Warranty Service System 110. In some embodiments, direct access to the single relational database may be selectively provided to some users.

Figure 2 depicts an illustrative data source 200, such as may be used in Warranty  
10 Service System 110 of Figure 1. Data source 200 may be comprised of a centralized database or a plurality of distributed and interrelated databases provided in one or more locations. In one embodiment, portions of data source 200 may be situated and maintained by a plurality of entities either within or without the warranty product/service provider enterprise maintaining the related Warranty Service System 110. Data source  
15 200 may also be redundantly distributed over a plurality of hardware systems for increased availability and reliability. Data source 200 may include a plurality of data source modules, such as Rate Data source 115, Historical Data source 116, Transaction Data source 117, and Interface Data source 118.

Rate Data source 115 includes a plurality of rate data for defining one or more rate  
20 structures for one or more warranty products/services. Rate Structure 211 includes a plurality of rates and rate modifiers which may be accessed according to a plurality of access fields or variables. Access fields or variables may be used to formulate queries for a particular rate or group of rates within Rate Structure 211 or may be returned as descriptors for one or more rates returned in response to submitted queries. The access  
25 fields and variables may include Product Description 212, Terms 213, Options 214, Provider 215, Trade Channel 216, and Product Subject Matter 217.

Product Description 212 is used for storing information concerning the product for which the warranty product/service is sought. The information stored in Product  
Description 212 includes basic product information, such as a descriptive name, brand  
30 name, numeric model designation, manufacturer's warranty contract terms and conditions, and other information. Rate Structure 211 may also be associated with other information

related to one or more warranty products, such as Terms 213 (*e.g.*, length of warranty, exclusions, etc.), Options 214 (*e.g.*, additional parts or labor coverage beyond standard coverage, etc.), and Provider 215. A user may select from information stored in Terms 213, Options 214, and Provider 215 to formulate a query for locating a desired warranty product or, in response to a search query, information stored in Terms 213, Option 214 and Provider 215 may be returned to provide a user with a plurality of choices, and possibly with varying rates for warranty products/services. Provider 215 includes information allowing a user to query data source 200 for similar warranty products/services offered by competing providers in order to compare rates, terms, and options of such competing warranty products/services.

Trade Channel 216 may provide information about warranty products/services with variable rate structures based upon the channel of trade through which the warranty product/service is marketed or distributed. Trade Channel 216 may include information concerning designations for a variety of trade channels, such as direct to consumer, retailer, manufacturer, or credit card company purchase. Trade Channel 216 may include designations for specific entities within or outside the warranty product/service provider enterprise or for a particular class of entities. For example, a warranty product/service may have a variable rate structure depending upon the commission or contract status of a particular vendor through which the associated product is purchased. Trade Channel 216 may also include designations for a particular access method, such as for telephone access, Web access, B2B access, or the use of an agent. Trade Channel 216 may also include designations for variable rate structures for purchase of warranty products/services by entities other than consumers, such as where a retailer may purchase warranty products/services for resale or for bundling with a product or service sold by such retailer.

The information stored in Rate Structure 211 may be accessed according to associated fields or variables descriptive of the subject matter of the product associated with a warranty product/service, such as Subject Matter 217. Subject Matter 217 may include information on consumer products for which a warranty product/service is purchased and may further include a plurality of variables that may contribute to the risk that a consumer will submit warranty claims such as a specific make, model, and year of a

motor vehicle with a particular combination of features, options, and condition. Highly detailed subject matter designations allows Rate Structure 211 to be responsive to very subtle gradations in warranty risk. Any number of descriptive components may be identified, for example Type 217a, Year 217b, Make 217c, Model 217d, Features 215e, Options 217f, and Condition 217g. Type 217a identifies the general subject matter of the product associated with the warranty product service, such as automobile, boat, recreational vehicle, trailer, VCR, refrigerator, etc. Year 217b, Make 217c, and Model 217d provide further information concerning the particular consumer product identified in Type 217a. Features 217e provide a description of standard features for the particular consumer product that may influence the claim risk, such as components and systems that are prone to failure or are particularly expensive to repair or replace. Options 217f are similar to Features 217e but represent features that are customizable or are features beyond the standard features of a product, such as dual airbags, foglights, leather seats, turbo-charged engine, for an automobile. Condition 217g stores information concerning a plurality of general condition designations for the consumer product for which the warranty product or service is sought, such as new/used, or may be a more quantitative designation such as number of years in use or mileage of a motor vehicle. In one embodiment, a vehicle identification number, product serial number, or similar unique product identifier may be used by Subject Matter 217 to access one or more of the more detailed subject matter components described above for the particular consumer product.

Rate Conditions 218 provide additional variables or fields for accessing Rate Structure 211. Rate Conditions 218 include information concerning conditions to be placed on availability of particular rate structures based upon factors independent of the variables and fields described above. Rate Conditions 218 permit incentive programs, consumer-specific rate modifications, and other factors to be included within Rate Data source 210. For example, return buyer incentive programs, vendor efficiency rewards or other vendor incentive programs, special sales and promotions, reactionary pricing schemes, and similar rate modifiers could be defined as conditional variables or fields that may be compared to vendor, customer, or subject matter information submitted in a request for a warranty product/service rate quotation.

Taxes 219 provide rate modifiers or alternate rate structures in order to assess fees or costs to be levied on the sale of a particular warranty product/service, such as taxes. Taxes 219 utilize geographic designations, tax status designations, or other fields or variables to identify the appropriate taxes to be assessed in connection with the sale of a particular warranty product/service. Where there are a comparatively small number of variations in such rates, such as where standard tax rates are levied in most areas, Rate Taxes 219 may simply be another field or variable for accessing Rate Structure 211. Where a larger number of variations exist, calculation of the taxes may be handled through a separate rate modifier structure. To the degree to which any of the above described fields or variables are largely independent of the warranty product/service itself, a similarly independent rate modifier system may be employed.

As shown in Figure 2, Historical Data source 116 includes a compilation of information concerning past claim and repair data accessible by subject matter, claim details, claimant, trade channel, or other category of information which may be helpful for supporting claim risk analysis. Historical Data source 116 includes a database of claim histories compiled for monitoring transactions with existing or past customers of the warranty product/service provider enterprise, claim data compiled by a third party reporting or research entity, or claim descriptions compiled or identified in any other way. Historical Data source 116 includes entries for Claims Made 221, Claim Value 222, Claim Timing 223, Claimant Demographics 224, Trade Channel 225, and Subject Matter 226. Claims Made 221 provides a basic description of the number and type of claims made for a particular subject matter, claimant, or trade channel. Claim Value 222 includes information concerning (the cost of repair or replacement for a warranty claim) and Claim Timing 223 includes information concerning when the claim arose in the service life of the particular product covered by the warranty. Claimant Demographics 224 includes information about a specific claimant or claimant type. Trade Channel 225 includes information concerning the channel of trade through which the particular warranty under which the claim was made was distributed or purchased. Trade Channel 225 includes substantially the same variety of information described above for Trade Channel 216 in Rate Data source 115. Subject Matter 226 categorizes information concerning Claims Made 221 according to the subject matter of the product covered by

- 14 -

such claims. Subject Matter 226 includes substantially the same details, such as Type 226a, Year 226b, Make 226c, Model 226d, Features 226e, Options 226f, and Condition 226g, as described above for Subject Matter 217 in Rate Data source 115.

Transaction Data source 117 includes information on actual transactions  
5 completed by the associated Warranty Service System 110 or the warranty product/service provider enterprise maintaining the Warranty Service System 110. Transaction Data source 117 includes data relating to consummated purchases of warranty products/services, prior rate quotation requests, and other types of transactions. Transaction Data source 117 is comprised of Customer Information 231, Subject Matter  
10 Identification 232, Transaction Description 233, and Transaction Channel 234. Customer Information 231 includes contact information and other customer-specific information for each consumer with whom a transaction has been initiated or completed. Subject Matter Identification 232 includes a description of the specific subject matter of any transaction, such as the specific consumer good for which the warranty product/service was  
15 purchased. Subject Matter Identification 232 includes a unique product identifier, such as a vehicle identification number, serial number, or similar designation. Transaction Description 233 includes a description of the details of any transaction included in Transaction Data source 117. For example, Transaction Description 233 includes  
20 identification of any requests for rate quotations, results returned in response to such requests for rate quotation, selections made, purchases consummated, contract terms and warranty identification, and other data specific to a transaction. Transaction Channel 234 includes information such as a description of the channel of trade through which any transaction was solicited, initiated by a buyer, responded to, or consummated. Instead of  
25 being stored separately, the information included in Transaction Channel 234 may be included in Transaction Description 233. In one embodiment, Transaction Data source 117 may also include information relating to follow up and maintenance transactions, such as on-going payment terms, extensions of the length of time such warranty products/services are provided, and other data for maintaining a continuing relationship with a customer.

30 Interface Data source 118 includes data used for maintaining one or more user interfaces for accessing the associated Warranty Service System 110. Interface Data

source 118 includes, for example, data for any number of alternative user interfaces as described above for User Interface Module 114 of Figure 1. Interface Data source 118 may also include data for a Graphical User Interface 241, such as used for a Web Site for access by users of the World Wide Web.

5           Figure 3 depicts a network 300 of systems for accessing uniform warranty rate information over a plurality of access channels. A Warranty Service System 310 may be accessed through a plurality of intermediate systems, including an Internet Vendor System 330, a Direct Vendor System 340, and a plurality of Enterprise Systems 350 and 360. Warranty Service System 310 may access a Rate Data source 320 for fulfilling requests  
10   for rate quotations. In some embodiments, other systems, such as Enterprise System 360 may access Rate Data source 320 directly instead of through an intermediate system. Internet Vendor System 330, Direct Vendor System 340, and Enterprise Systems 350 and 360 provide access to Warranty Service System 310 through a plurality of terminal devices 370, such as personal computers 371, 372, 373, 374, 376, and 377 and telephone  
15   375.

Warranty Service System 310 may be used by a user to access uniform rate information contained in Rate Data source 320. For example, a user may input a request for rate quotation to System 310 via Internet Vendor System 330, Direct Vendor System 340, or Enterprise Servers 350 and 360.

20           Warranty Service System 310 further includes a Web Server 311, a Transaction Server 312, a Business-to-Business Server 313, and System Data 314. Web Server 311 provides an interface for the user, such as a Web site or a plurality of Web pages. The user interface of Web Server 311 may be integrated with a user interface provided by an intermediate system, such as Internet Vendor System 330, or may be bypassed by a  
25   system using another access paradigm, such as a telephone interface provided by Direct Vendor System 340. Transaction Server 312 provides system operations for Warranty Service System 310. For example, Transaction Server 312 provides various functions for System 310 including query formulation, submission of queries, and formatting of retrieved rate information from Rate Data source 320 for providing results in response to  
30   input queries. Transaction Server 312 also provides electronic commerce functionalities, such as user verification and security, electronic purchase transactions, payment



- 16 -

verification, transaction calculation and data archiving, and other functions for conducting electronic purchase transactions. Business-to-Business Server 313 may receive queries from intermediate systems within or outside the warranty product/service provider enterprise. Business-to-Business Server 313 may reconfigure and redirect queries through  
5 Transaction Server 312 and receive results from Transaction Server 312. The results may then be reconfigured according to predetermined communication protocols to be returned to the intermediate systems. Business-to-Business Server 313 can handle communications with a plurality of intermediate systems, such as Internet Vendor System 330, Direct Vendor System 340, or Enterprise Systems 350 and 360. System Data 314  
10 may include any data retained within Warranty Service System 310 for supporting operations and may include transaction data, interface data, and historical data.

Rate Data source 320 stores and organizes uniform rate information for use by Internet Vendor System 330, Direct Vendor System 340, or Enterprise Systems 350 and 360, with or without the use of Warranty Service System 310. An example of Rate Data  
15 source content is provided above with regard to Rate Data source 115 in Figure 2.

Internet Vendor System 330 provides consumer access over the Internet to the rate information provided in Rate Data source 115. Internet Vendor System 330 uses the rate data query system provided by Warranty Service System 310. Internet Vendor System 330 includes a Web Server 331 for providing a user interface, and a transaction server for  
20 executing purchase transactions based upon results returned from requests for quotations input to Warranty Service System 310. Data stored in Vendor Data 333 includes transaction data, historical data, and user interface data useful in the operation of Internet Vendor System 330.

Direct Vendor System 340 may be an external system for selling warranty  
25 products/services directly to consumers. Direct Vendor System 340 includes a Vendor Server 341 for processing data received from Warranty Service System 311. System 340 may also execute local functions specific to the operation of Direct Vendor System 340. For example, Direct Vendor System 340 may use the transactional capabilities of Warranty Service System 310 for consummating purchase transactions and maintaining  
30 data resources, or may include a plurality of protocols and interfaces for providing rate data and transactional capabilities through alternate terminal devices, such as telephone

- 17 -

systems or other communication systems, or may support a plurality of direct access terminals.

Enterprise Systems 350 and 360 provide proprietary interfaces for agents of the warranty product/service provider enterprise to use to access warranty rate information.

- 5 Enterprise Systems 350 and 360 include Enterprise Servers 351 and 361, respectively. Enterprise Servers 351 and 361 may support enterprise networks in one or more localities. Enterprise System 350 utilizes the transaction capabilities of Warranty Service System 310. Enterprise System 360 directly accesses Rate Data source 320 utilizing transactional capabilities within Enterprise Server 361. Enterprise Systems 350 and 360 allow task
- 10 customized access to enterprise agents who require access to Rate Data source 320 for data maintenance and analysis, administrative and reporting functions, and other enterprise based functionalities.

- Figure 4 depicts the steps included in a method 400 of providing uniform warranty rate information according to an embodiment of the invention. The steps of method 400
- 15 may be completed using a warranty service system, such as Warranty Service Systems 110 and 310 of Figures 1 and 3 respectively.

- In step 410, a user of System 110 or 310 submits a request for a warranty rate quotation which specifies basic information about the warranty product/service desired such as, subject matter, trade channel, or other information, for selecting or calculating
- 20 one or more rate quotations of interest. The warranty rate quotation request may be comprised of a collection of data compiled from a series of forms provided through a Web site over the Internet to the user. For example, Chris, a consumer, accesses the Web site of a warranty product/service provider enterprise. Through a series of Web page forms, Chris is prompted to enter basic information about the subject matter for which the
- 25 product/service is desired, in this case, a 1995 Ford Escort.

- In step 420, a trade channel is identified. Such trade channel information may be input via a field specified in the request for rate quotation, such as a customer or vendor number field, or terminal device designation, or other indication. Or, such information may otherwise be identified by the receiving System 110 or 310 according to the method
- 30 of access, such as via a particular Web site. To continue the example, Chris' input information is received by the Warranty Service System 110 or 310, which System 110 or

- 18 -

310 identifies the particular Web site being accessed by Chris. A particular warranty product/service rate structure may apply to warranty products/services sold through that Web site.

In step 430, the subject matter associated with the request for quotation is identified. Such subject matter information may include type of product, make or manufacturer of the product, model, year manufactured, features, options, current condition of the product, or other information which may be input in a field format or other configuration. To continue the example, the Warranty Service System 110 or 310 identifies the subject matter information input by Chris, for her 1995 Ford Escort.

In step 440, a resource such as Rate Retrieval Module 111 (shown in Figure 1), which includes a rate structure for calculating uniform warranty rates, is accessed. In step 450, Rate Retrieval Module 111 calculates one or more rates for one or more warranty products/services available from the input information by using the trade channel, subject matter, and other information provided in the input information associated with the request for quotation. To continue the example, the Warranty Service System 110 or 310 compares the input information, including at least a portion of the information provided by Chris, including the description of the subject matter and identification of the trade channel, to the information stored in data source 200 for such input trade channel, subject matter and other factors and retrieves the rate matching such input information.

In step 460, the resulting rate quotation or quotations are transmitted back to the requesting user along with descriptions of the associated warranty products/services. The rates and descriptions, along with any options, such as different lengths of time such warranty products/services may be provided, deductibles from the value of claims covered by the warranty, and other terms of warranty coverage, are provided to Chris so that she may make a purchase decision. The rate quotations provided may include both warranty products offered through the provider of the Warranty Service System 110 or 310 as well as competing products of other product/service providers in order to allow Chris to make a meaningful warranty product comparison.

Figure 5 provides a more detailed outline of the steps performed in step 430 of Figure 4 of identifying the subject matter of a rate quotation request. In step 510, the type of the subject matter or product for which a warranty product/service is sought is

identified. In step 520, a unique subject matter identifier, such as a vehicle identification number for a motor vehicle or a product serial number for a consumer product, is optionally provided. The subject matter identifier allows the system to access a data source containing the remaining subject matter details. In step 530, the year of  
5 manufacture of the product is identified. In step 540, the make or manufacturer of the product is identified. In step 550, the model of the product is identified. In step 560, standard features included with the product are identified. In step 570, optional features of the product are identified. In step 580, the condition of the product is identified.

Figure 6 depicts a more detailed view of a method 600 for accessing a rate  
10 structure, calculating one or more rates, and providing a rate quotation to the requesting user. In step 610, a query is formulated based upon subject matter (or product for which the warranty product/service is sought) and trade channel designations. In step 620, basic rates for one or more warranty products covering the subject matter and available through the trade channel are identified. In step 630, product options, conditions, and available  
15 terms are evaluated and optional configurations for the warranty products are identified, as are associated variations in rates. In step 640, taxes to be assessed on the warranty products identified, based upon the location and/or other tax status of the customer, are then calculated. In step 650, the warranty product description, contract terms, and rate for each warranty product option is provided to the user. In step 660, the user may submit,  
20 and the system receive, a product option selection. In step 670, a purchase transaction for the selected warranty product may be executed.

This invention has been described in connection with the preferred embodiments. These embodiments are intended to be illustrative only. It will be readily appreciated by those skilled in the art that modifications may be made to these preferred embodiments  
25 without departing from the scope of the invention as defined by the appended claims.

- 20 -

**Claims**

What is claimed is:

1. A system comprising:
  - a data source including:
    - 5 a plurality of warranty product/service descriptions;
    - a plurality of warranty product/service rate structures;
    - a plurality of product trade channel designations; and
    - a plurality of warranty subject matter designations; and
  - a rate retrieval engine for querying said data source based upon an input
  - 10 product trade channel and a subject matter and selectively returning at least one warranty product/service rate corresponding to at least one warranty product/service description for providing warranty coverage for said input subject matter.
- 15 2. The system of claim 1, further comprising:
  - a historical data source including historical data related to at least one aspect of the input subject matter;
  - a risk analysis engine for evaluating risk based upon the at least one aspect of the input subject matter; and
  - 20 wherein, said rate retrieval engine utilizes a risk evaluation from said risk analysis engine to selectively return the at least one warranty product/service rate.
3. The system of claim 1, wherein said plurality of warranty product/service descriptions and said plurality of warranty product/service rate structures include
- 25 warranty product/service descriptions and warranty product/service rate structures of a plurality of warranty product/service providers and the selectively returned at least one warranty product/service rate includes warranty product/service rates for warranty products/services from a plurality of warranty product/service providers.
- 30 4. The system of claim 1, wherein the subject matter is comprised of a motor vehicle and the plurality of warranty subject matter designations include vehicle

- 21 -

identification number, mileage, vehicle year, vehicle make, vehicle model, and vehicle standard and optional features.

- 5        5.        The system of claim 1, wherein said data source further comprises a plurality of warranty product/service taxation rates and said rate retrieval engine utilizes a warranty product/service taxation rate to calculate a warranty product/service rate quotation based upon at least one warranty product/service rate.
- 10       6.        The system of claim 1, further comprising an interface protocol to allow remote users to access said rate retrieval engine.
- 15       7.        The system of claim 6, wherein said data source is a centralized database and said interface protocol allows enterprise wide access to the centralized database through said rate retrieval engine.
- 18       8.        The system of claim 6, wherein said interface protocol is accessible to a plurality of vendors for providing real-time warranty product/service rate quotations.
- 20       9.        The system of claim 6, wherein said interface protocol is accessible to a plurality of consumers for providing real-time warranty product/service rate quotations.
- 23       10.       The system of claim 1, further comprising a transaction engine for completing an electronic sale of at least one warranty product/service to a remote user.
- 25       11.       A method of providing uniform warranty rates to a plurality of users over a network comprising the steps of:
  - receiving an input request for a warranty product/service rate quotation;
  - identifying a product trade channel based upon the request;
  - identifying a subject matter to be covered by said desired warranty
  - 30       product/service from the request;

- 22 -

accessing a data source including a plurality of warranty product/service rate structures;

calculating a warranty product/service rate for the subject matter based upon the information in the input request; and

5           outputting a warranty product/service rate quotation.

12.   The method of claim 11, further comprising the steps of receiving a geographic designation and calculating a warranty product/service taxation rate.
- 10   13.   The method of claim 11, further comprising the step of receiving a subject matter description for the product for which the desired warranty product/service coverage is sought and wherein the warranty product/service rate structure is based at least in part upon the subject matter description.
- 15   14.   The method of claim 13, wherein the warranty product/service rate structure is based upon a make, model, model year, and mileage designation for the subject matter.
- 20   15.   The method of claim 14, wherein the warranty product/service rate structure is based upon standard and optional features included with the subject matter.
16.   16.   The method of claim 13, wherein the subject matter description includes a vehicle identification number.
- 25   17.   The method of claim 11, wherein the step of calculating the warranty product/service rate includes utilizing historical data to analyze risk associated with the subject matter.
- 30   18.   The method of claim 11, further comprising the step of providing a user interface for accessing information relating to warranty product/service rate quotations by

remote users over a network.

19. The method of claim 18, further comprising the step of accepting payment information for a purchase transaction from a remote user.

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20. The method of claim 11, wherein the step of calculating the warranty product/service rate includes calculating a plurality of warranty product/service rates based upon a plurality of warranty product/service rate structures.



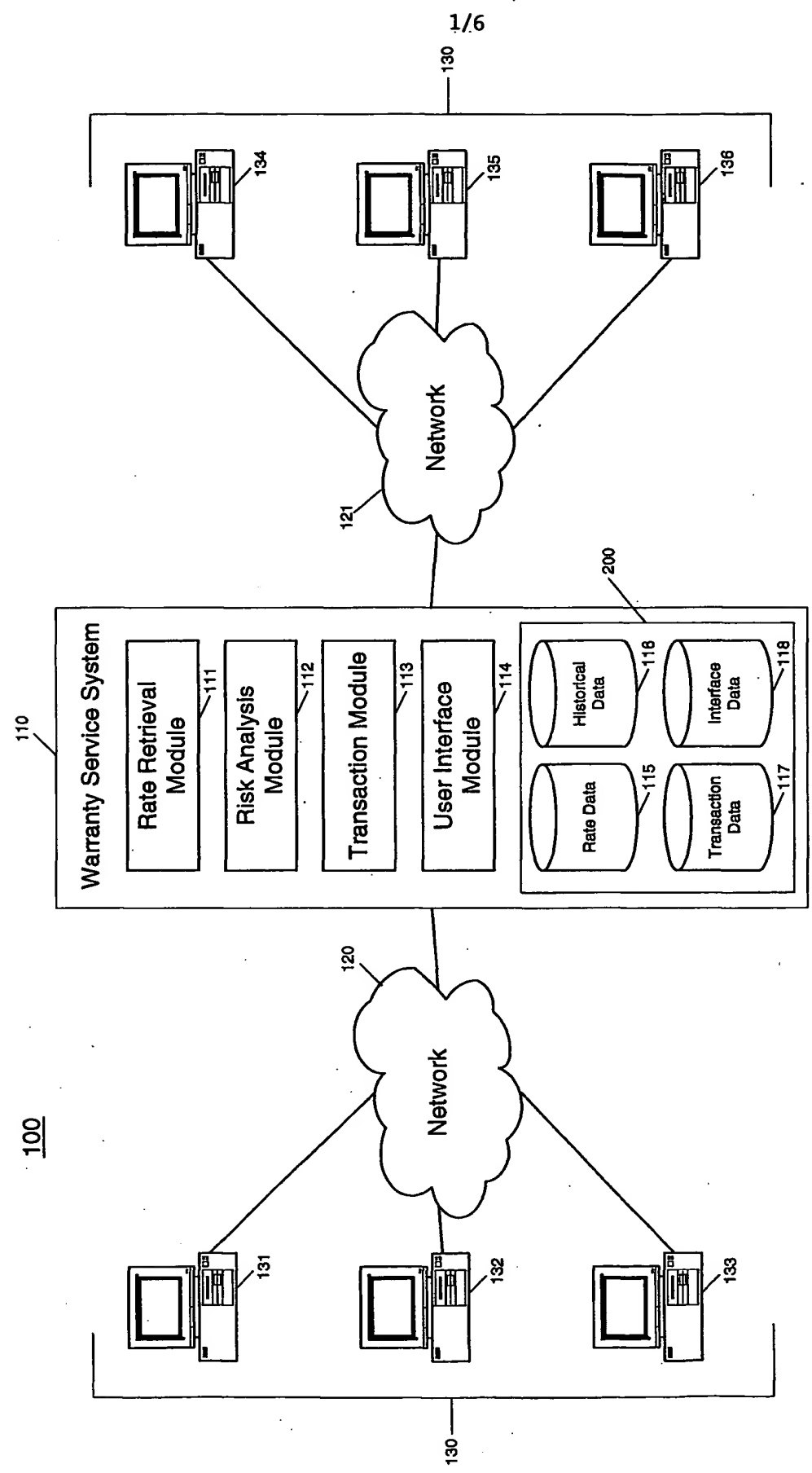


Figure 1

200

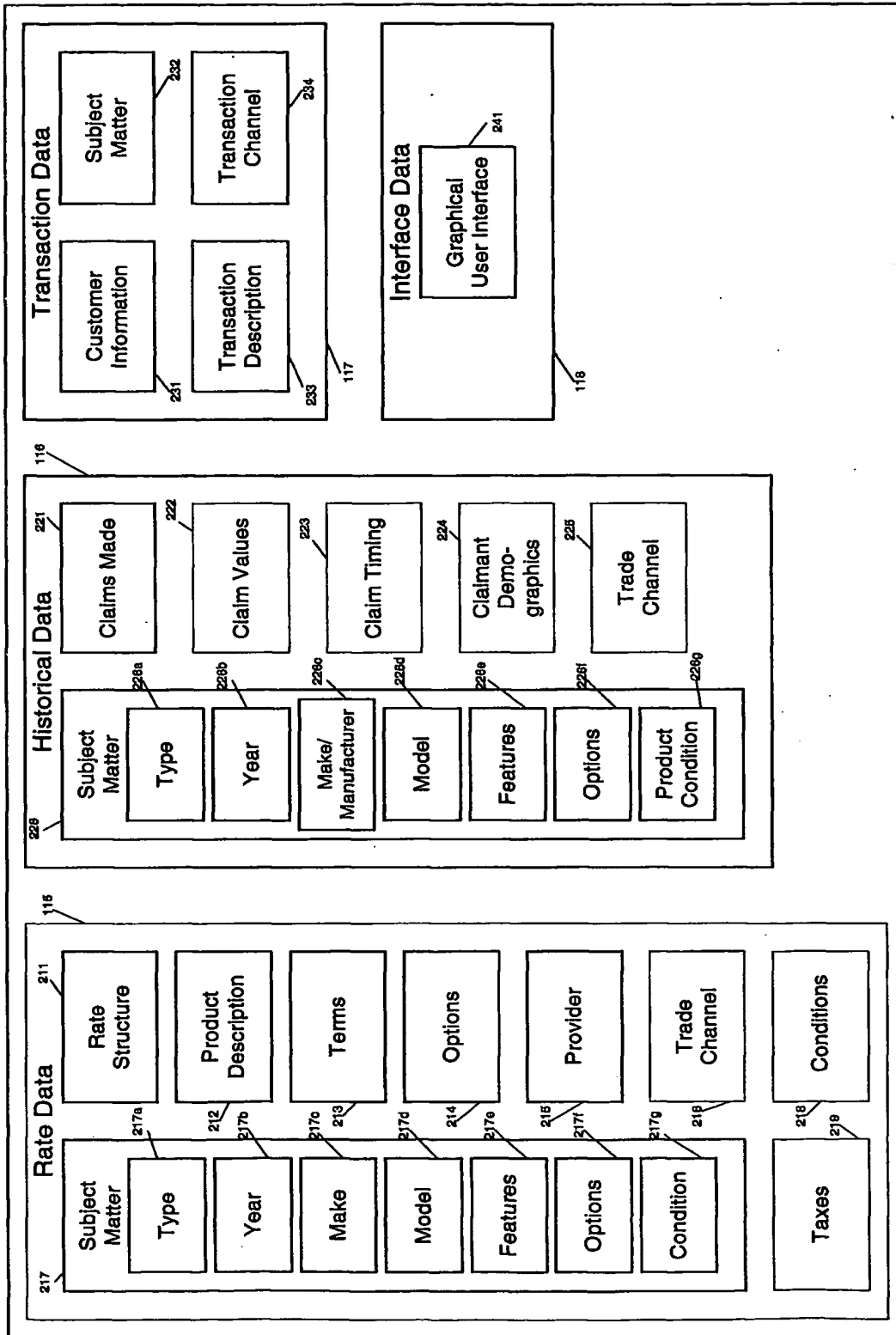


Figure 2

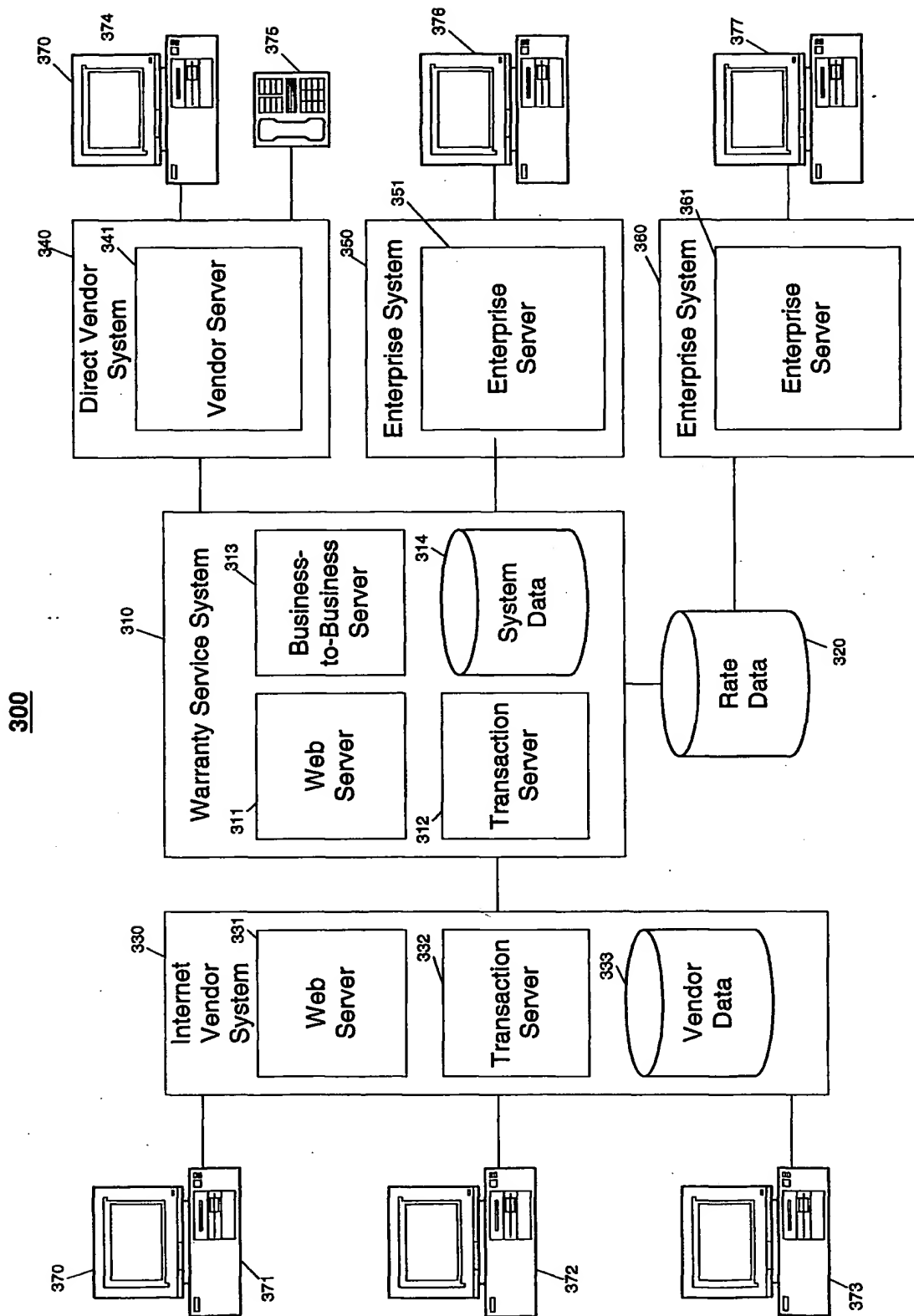
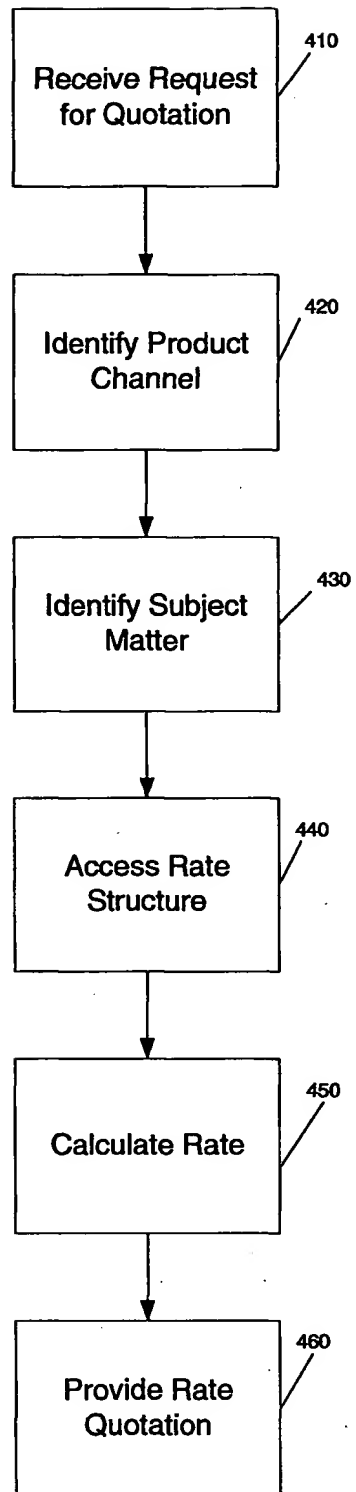
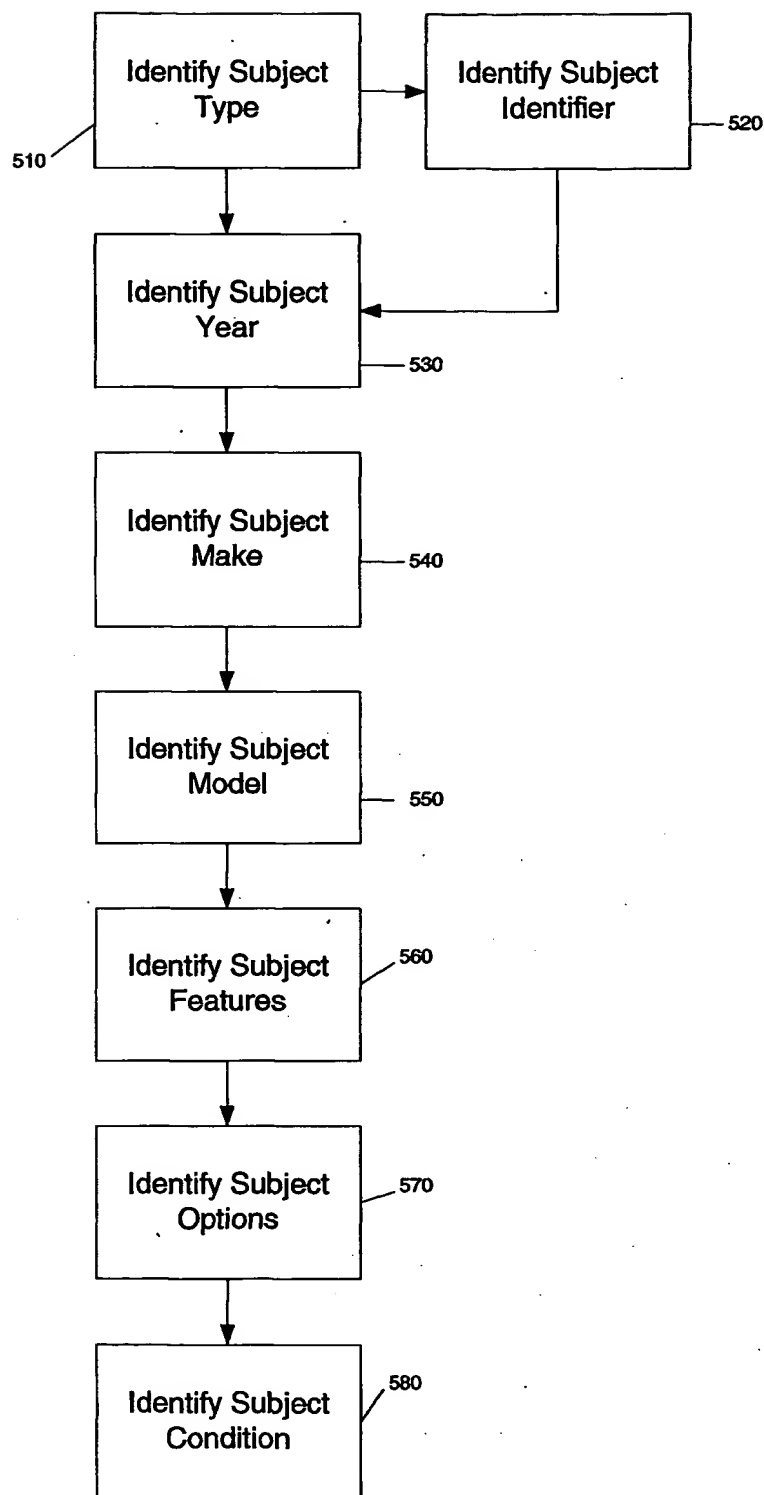


Figure 3

400

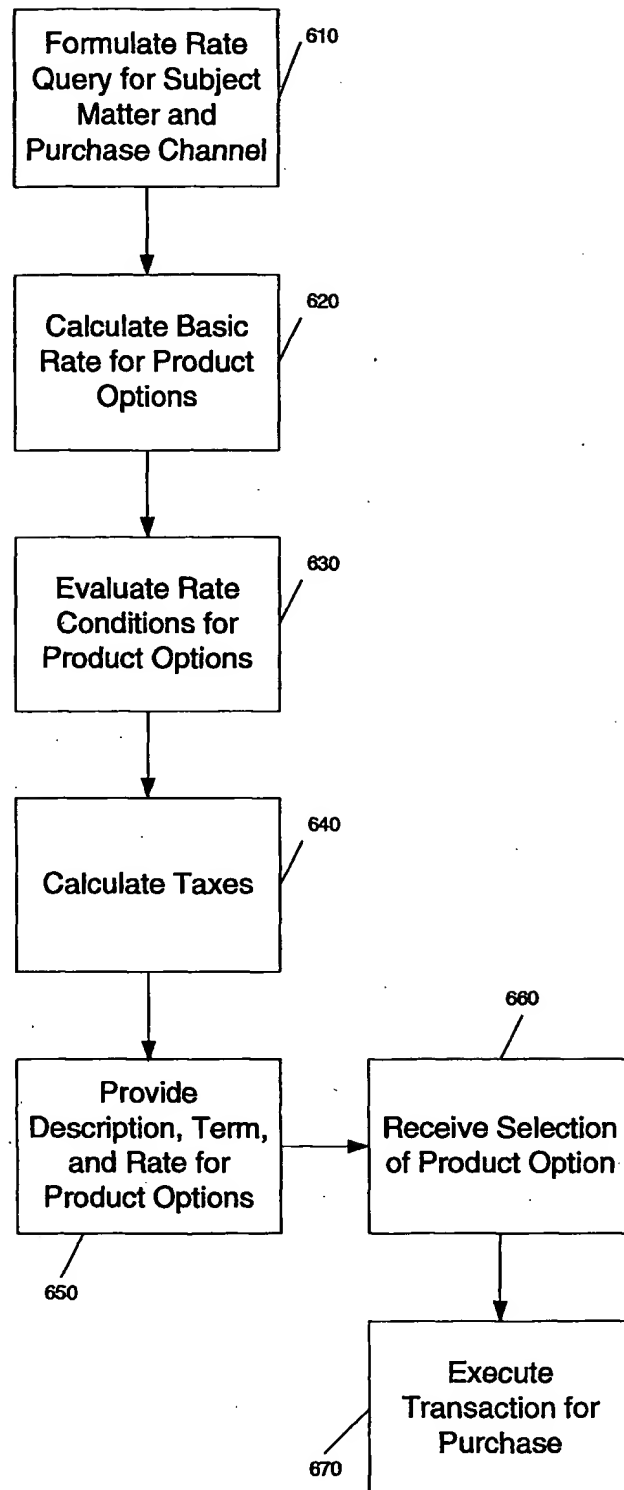
4/6

**Figure 4**

**430****Figure 5**

600

6/6

**Figure 6**